

What is claimed is:

1. A method for transmitting frames in a wireless local area network, the frame signal pass through a repeater and a bridge, the method comprising the steps of:

transmitting a frame from the source station to the repeater, wherein the frame comprises a basic service set identifier field, a source address field and a destination address field;

replacing the content of the basic service set identifier field by an identifier of the bridge; and

transmitting the replaced frame from the repeater to the bridge.

2. The method for transmitting frames in a wireless local area network of Claim 1, wherein the repeater transmits an acknowledgement frame to the source station after receiving the frame transmitted from the source station.

3. The method for transmitting frames in a wireless local area network of Claim 2, wherein the bridge transmits an acknowledgement frame to the repeater, and the repeater will not forward this acknowledgement frame to the source station.

4. The method for transmitting frames in a wireless local area network of Claim 1, wherein the frame further comprises a first field and a second field, the first field is set to logic one for indicating that the frame is transmitted to a distribution system, and the second field is set to logic zero for indicating that the frame is not transmitted from a distribution system.

5. A method for transmitting frames in a wireless local area network, the

wireless local area network comprising a repeater, a destination station and a bridge, the method comprising the steps of:

transmitting a frame from the bridge to the repeater, wherein the frame comprises a destination address field, a basic service set identifier field and a source address field;

replacing the content of the basic service set identifier field by an identifier of the repeater; and

transmitting the replaced frame from the repeater to the destination station.

6. The method for transmitting frames in a wireless local area network of Claim 5, wherein the destination station transmits an acknowledgement frame to the repeater after receiving the frame transmitted from the repeater.

7. The method for transmitting frames in a wireless local area network of Claim 5, wherein the frame further comprises a first field and a second field, the first field is set to logic zero for indicating that the frame is not transmitted to a distribution system, and the second field is set to logic one for indicating that the frame is transmitted from a distribution system.

8. A data structure for use in a frame transmission of a wireless local area network, the wireless local area network comprising at least one access point, a source station and a destination station, the data structure comprising:

a destination address field;

a basic service set identifier field, wherein the content of the basic service set identifier field is replaced by an identifier of the next access point receiving the frame during the frame transmission;

a source address field; and

a data field.

9. The data structure for use in a frame transmission of a wireless local area network of Claim 8, further comprising:

a first field for indicating if the frame is transmitted to a distribution system; and

a second field for indicating if the frame is transmitted from a distribution system.